REMARKS

Claims 1, 6-9, 11, 13, 15, 16, 65, 70-80, 90, 95-104, 138, 139, 141 and 143-189 are pending and under examination. Claims 7 and 71 have been canceled. Claims 1, 65, 72, 90, 96, 138, 141, 144 and 146 have been amended. Support for the amendments can be found throughout the specification and the claims as filed. In particular, support for the amendment to claim 1 can be found, for example, in claim 7. Support for the amendment to claims 65 can be found, for example, in claim 71. Support for the amendment to claims 90 and 144 can be found, for example, in claim 98. Support for the amendment to claims 138 and 141 can be found, for example, in claim 7. Claims 72, 96 and 146 have been amended to correct antecedent basis. Accordingly, these amendments do not raise an issue of new matter and entry thereof is respectfully requested.

The rejection of claims 1, 6, 9, 11, 13, 15, 16, 65, 70, 73, 75, 77, 79, 90, 97, 99, 101, 103, 138, 139, 141, 144 and 147-189 under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter is respectfully traversed. Applicants respectfully maintain, for the reasons of record, that the claims are directed to statutory subject matter.

Applicants appreciate the guidance provided by Examiner Zeman regarding claim terms or phrases that would be considered to obviate the rejection. Although Applicants maintain the position of record that the claims are directed to statutory subject matter, Applicants point out that the claims already recited or have been amended to recite the suggested terms or phrases. In particular, independent claim 1 has been amended to incorporate the limitation of claim 7, which has not been rejected. Therefore, claim 1 recites "disease state" as indicated would be considered statutory. Independent claim 65 already recited "disease state" has been amended to recite the phrase "in an individual" as recited in claim 71, which has not been rejected. Therefore, claim 65 recites "disease state" as indicated would be considered statutory. Independent claims 90 and 144 have been amended to recite "measuring the expression level of said n molecules in said specimen." Therefore, claims 90 and 144 recite "measuring" the expression level of molecules, as indicated would be considered statutory.

With regard to claim 138, this claim is directed to a computer apparatus and clearly falls under the category a "machine" as set forth in 35 U.S.C. § 101. Therefore, claim 138 is directed

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to statutory subject matter. Nevertheless, to further prosecution, claim 138 has been amended to recite that the perturbed expression profile indicates a disease state. Regarding claim 141, this claim is directed to a computer-readable medium having stored thereon instructions which, when executed by a processor, cause the processor to perform the recited steps. As discussed in the previous response and as set forth in MPEP § 2106.01 (I), "a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory" [emphasis added]. Thus, claim 141 is directed to statutory subject matter. Nevertheless, to further prosecution, claim 141 has been amended to recite that the perturbed expression profile indicates a disease state.

Applicants respectfully maintain that the claims are directed to statutory subject matter. Accordingly, Applicants respectfully request that this rejection be withdrawn.

The rejection of claims 1, 6, 9, 11, 13, 15, 16, 65, 70, 73, 75, 77, 79, 90, 97, 99, 101, 103, 138, 139, 141, 144 and 147-189 under 35 U.S.C. § 101 and § 112, first paragraph, as allegedly lacking utility is respectfully traversed. Applicants respectfully maintain that the claims have a specific, substantial and credible utility.

Applicants appreciate Examiner Zeman's comments on claims considered to have a specific, substantial and credible utility. Although Applicants maintain the position of record that the claims have a specific, substantial and credible utility, nevertheless to further prosecution, Applicants point out that the claims already recited or have been amended to recite the terms and phrases as suggested by Examiner Zeman to have a specific, substantial and credible utility. Applicants respectfully maintain that the claimed methods, computer apparatus and computer-readable medium have a specific, substantial and credible utility. Therefore, Applicants respectfully request that this rejection be withdrawn.

In light of the amendments and remarks herein, Applicants submit that the claims are now in condition for allowance and respectfully request a notice to this effect. The Examiner is invited to call the undersigned agent if there are any questions.

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To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 502624 and please credit any excess fees to such deposit account.

Respectfully submitted,

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